

*Environmental Assessment*

Proposed Explosive Ordnance Disposal  
Detonation Site on Juniper Butte Range

Mountain Home Air Force Base

May 2012

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## FINDING OF NO SIGNIFICANT IMPACT

### 1.0 NAME OF ACTION

Proposed Explosive Ordnance Disposal (EOD) Demolition Site on Juniper Butte Range (JBR)

### 2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

Based on the analysis in the final Environmental Assessment (EA), the Air Force has selected Alternative B – Proposed Action.

The Proposed Action would allow an establishment of an EOD demolition site on JBR to render safe BDU-33s and flares to support the 366 FW and the Idaho Air National Guard. The demolition site will be utilized approximately two to three times per year as needed to render safe BDU-33s and flares.

### 3.0 SUMMARY OF ENVIRONMENTAL CONSEQUENCES

This EA analyzes the potential environmental impacts from the Proposed Action or alternatives. According to the analysis in this EA, implementation of the Proposed Action at Juniper Butte Range (JBR) would not result in significant impacts to any resource category or significantly affect existing conditions at MHAFB. The following summarizes and highlights the results of the analysis by resource category.

*Noise.* A minute increase will occur in average hourly noise levels. Two to three times per year noise levels will increase acutely when the detonation occurs. Frequency of detonation related noise events will decrease.

*Safety.* The proposed action will result in no change to fire safety because the proposed demolition site is in an area with no vegetation and there is little incendiary potential with the detonation of BDU-33s. Additionally, EOD activities will occur outside fire season. There will be a slight decrease to the risk to EOD personnel.

*Hazardous Materials and Solid Waste.* There will be no increase to the generation of hazardous waste or solid waste. After the BDU-33 is detonated the pieces that are remaining will be recycled.

*Air Quality.* A small percentage of fugitive dust will be generated when the BDU-33s are detonated. The detonation will only occur about two to three times a year. Owyhee County does not have fugitive dust rules in place so no permits will be required. The amount of fugitive dust generated by this operation with respect to typical range operations is negligible.

*Biological Resources.* There will be no change from the existing conditions if the proposed action is implemented.

*Cultural Resources.* There will be no change from the existing conditions if the proposed action is implemented.

*Coastal Zone and Floodplain Resources.* There will be no change from the existing conditions if the proposed action is implemented.

*Land Use and Recreation.* There will be no change from the existing conditions if the proposed action is implemented.

*Water and Soil Resources.* There will be no change from the existing conditions if the proposed action is implemented.

#### **4.0 CONCLUSION**

On the basis of the findings of the EA, which has been conducted in accordance with the National Environmental Policy Act, the Council on Environmental Quality regulations, and CFR Title 32 part 989, implementing the Proposed Action would not result in significant impacts to human health or the natural environment. Therefore, a Finding of No Significant Impact is warranted and further analysis under an Environmental Impact Statement is not required.

8/2/2012

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## **Executive Summary**

This Environmental Assessment (EA) describes the potential environmental consequences resulting from the proposed Explosive Ordnance Disposal (EOD) detonation site on Juniper Butte Range (JBR), a property of Mountain Home Air Force Base (MHAFB). EOD would designate an area near the north surface to air missile (SAM) target site on JBR to explosively treat UXOs. No significant impacts would result from the Proposed Action or alternatives that would warrant the preparation of an Environmental Impact Statement.

### **Environmental Impact Analysis Process**

The United States Air Force, Air Combat Command, and the 366<sup>th</sup> Fighter Wing at MHAFB have prepared this EA in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations implementing NEPA, and the Air Force Instruction 32-7061, *Environmental Impact Analysis Process* (32 CFR 989, et. Seq.).

### **Purpose and Need for Action**

The purpose of designating a detonation site on JBR is to comply with Title 40 CFR 260-270, DODI 3200.16, DODI 4140.62, and AFI 13-212. The purpose of the detonation site is to render safe unexploded ordnance specifically, BDU-33s and flares. BDU-33s are 25 pound practice ordnance with a signal cartridge to release a cloud of smoke on impact. Flares are a defensive countermeasure consisting of a magnesium and Teflon pellet deployed by aircraft. Flares are designed to burn completely within 4 to 4.5 seconds.

Occasionally, the BDU-33s are duds and the signal cartridge does not deploy. Flares are considered duds when they are not fully consumed before reaching the ground. EOD must take the duds to a detonation site to render safe. Currently, because JBR does not have a detonation site the BDU-33s and flares left intact on the range. 177 BDU-33s are currently waiting to be rendered safe before being recycled. BDU-33s considered munitions debris when the signal cartridge successfully deploys. Ordnances are to be recycled per DoDI 4140.62.

### **Proposed Action and No-Action Alternative**

The proposed action is for the Air Force to designate a detonation site on JBR located within the existing North SAM site. The detonation site will be utilized two to three times a year to render safe unexploded ordnance (UXOs). BDU-33s that have an intact signal cartridge and unconsumed flares are considered unexploded ordnance. EOD will utilize C-4 explosives to detonate the BDU-33s and flares. UXOs which have been rendered safe will be recycled IAW DODI 4140.62.

The no-action alternative is not designating a detonation site on JBR. The no-action alternative is included in the EA to meet the procedural requirements of NEPA. No-action would be inconsistent with the needs of the Air Force.

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## **Summary of Environmental Consequences**

This EA provides an analysis of potential impacts from designating an area on JBR as a detonation site for BDU-33s and flares.

- **Noise.** Potential for a decrease in noise during EOD operations. No change will occur in average hourly noise levels. Associated noise will occur when the detonation occurs.
- **Safety.** No change to fire safety will occur. There will be a very slight increase to the risk of EOD personnel. Many safety procedures are in place to minimize that risk.
- **Hazardous Materials and Solid Waste.** Munitions rendered safe are recycled. There will be a slight increase to recycled solid waste. No hazardous waste will be generated from the proposed action. No solid waste would be generated or put into landfill.
- **Air Quality.** A small percentage of fugitive dust will be generated when the BDU-33s are detonated. The detonation will only occur about two to three times a year. Owyhee County does not have fugitive dust rules so the potential adverse effects would be insignificant.
- **Biological Resources.** No change from existing conditions would result from the implementation of the proposed action.
- **Cultural Resources.** No change from existing conditions would result from the implementation of the proposed action.
- **Coastal Zone and Floodplain Resources.** No change from existing conditions would result from the implementation of the proposed action.
- **Land Use and Recreation.** No change from existing conditions would result from the implementation of the proposed action.
- **Water and Soil Resources.** No change from existing conditions would result from the implementation of the proposed action.

## **Purpose and Need for Action**

### **Introduction**

The 366th Fighter Wing, Mountain Home Air Force Base (MHAFB), Idaho proposes designating an area on Juniper Butte Range (JBR) to render safe UXOs. JBR is part of the Mountain Home Range Complex (MHRC).

This EA has been prepared to evaluate the potential environmental effects from the implementation of the Proposed Action or no action alternative. The no action alternative will be prepared in accordance with 32 CFR 989, Air Force Environmental Impact Analysis Process and with the National Environmental Policy Act (NEPA), as amended (PL 91-190).

### **Proposed Federal Action**

The proposed federal action is designating an area on JBR to render safe UXOs. The United States Air Force (USAF) proposes designating a detonation site to destruct UXOs, specifically BDU-33s and flares that are not certified safe after being dropped from the aircraft.

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## **Purpose and Need**

The purpose of designating an area on JBR to render safe UXOs is to have a safe place to explosively treat the UXOs on JBR. Currently, the only approved detonation sites are on Saylor Creek Range (SCR) and MHAFB.

EOD personnel are responsible for clearing both SCR and JBR of expended munitions. Generally, when EOD personnel clear a range, they walk or drive All Terrain Vehicles (ATVs) across the range to collect and inspect ordnance. EOD personnel separate the ordnance as scrap or duds. Some dudded ordnances are safe to move. EOD takes these to a “detonation site” for destruction. Dudded munitions which are not safe to move are treated at their discovered location. At the detonation site, EOD places C-4 explosive charges on top to detonate the unsafe ordnance. After detonation, EOD rechecks and separates the safe ordnance for recycling. Detonation sites currently exist on SCR and MHAFB but do not exist on JBR.

To date, during annual EOD clearance operations, BDU-33s not certified safe are left in the impact area on JBR. Currently, there are approximately 177 BDUs on JBR to be rendered safe upon acceptance of the proposed alternative.

## **Background**

### **Mountain Home Air Force Base**

MHAFB is located approximately 50 miles southeast of Boise, Idaho, and 8 miles southwest of Mountain Home, Idaho. MHAFB includes the base proper plus a Small Arms Range, the Rattlesnake Radar Station, Middle Marker, and C.J. Strike Dam Recreation Complex.

### **Mountain Home Range Complex**

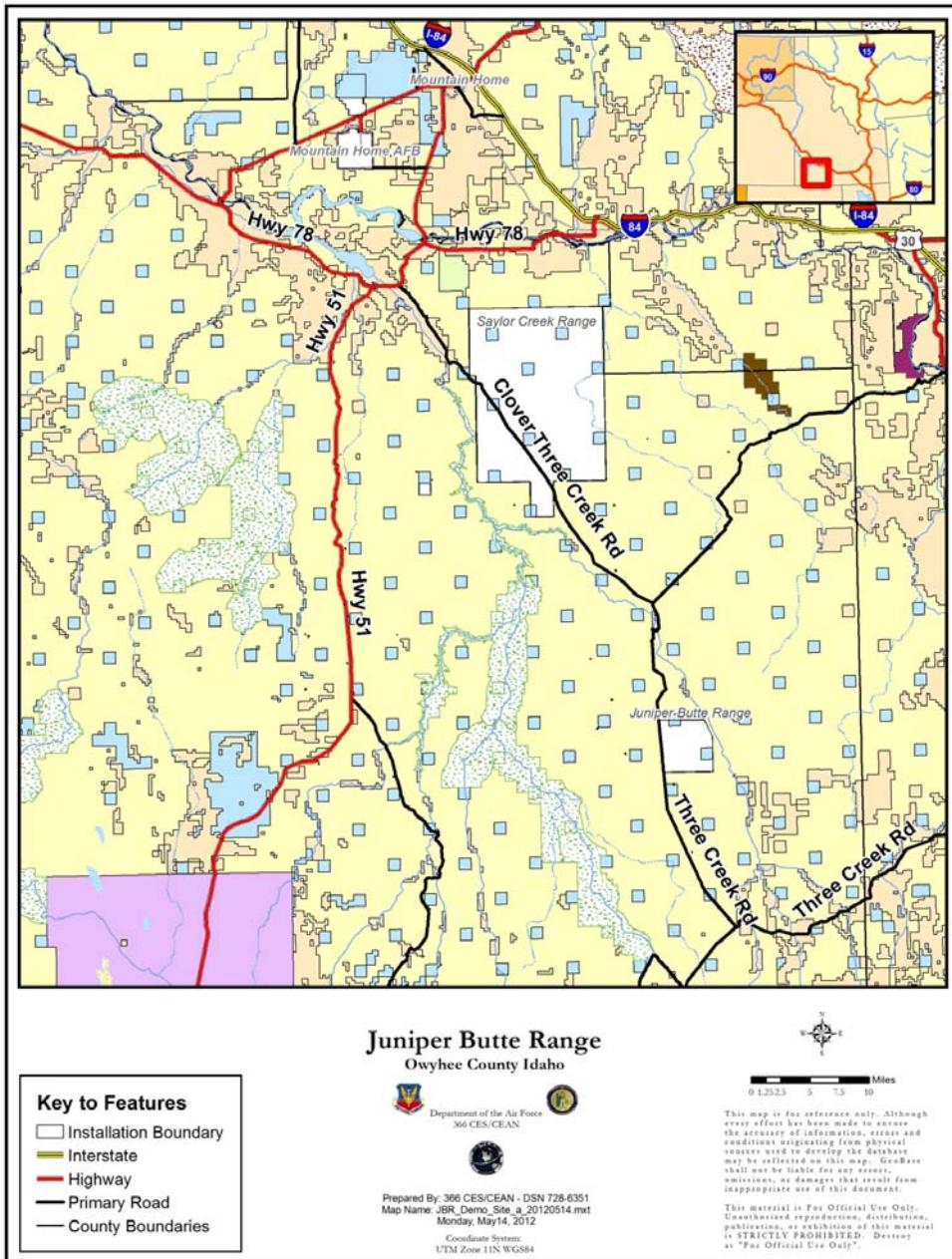
The Mountain Home Range Complex (MHRC) encompasses many properties in Owyhee County and one property in Twin Falls County. SCR and JBR are part of this complex (Figure 1).

## **Description of Proposed Action and Alternatives**

This section presents the No Action and Proposed Action alternatives. Both alternatives are described in detail and a summary comparison is included.

### **Introduction**

Federal agencies are required by NEPA to evaluate a range of reasonable alternatives to the action being proposed. All alternatives evaluated must satisfy the purpose and need for the action. This Draft EA documents MHAFB’s planning process.



**Figure 1.** Location of JBR in Owyhee County Idaho.

BDU-33s are small 25 pound cast-iron and steel non-explosive ordnance used in training to simulate actual bombs. These training munitions, by design, have similar flight and delivery behavior to war shot munitions. Since it is a practice bomb, the BDU-33 uses a signal cartridge instead of explosives. When the BDU hits the ground, a plunger is depressed, igniting the expulsion charge, the expulsion charge expels the smoke canister exposing the contents to the air, creating a flash and smoke to show the pilot and weapons scoring team where the bomb struck. The signal cartridge is made up of a small amount of titanium tetrachloride that mixes with moisture in the air to form a small marking plume. The cold spot ingredients become inert and dissipate upon contact with the air. Occasionally, the signal cartridge will not deploy and are classified as duds.

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Flares are a defensive countermeasure consisting of a magnesium and Teflon pellet deployed by aircraft. Flares are designed to burn completely within 4 to 4.5 seconds. Occasionally, the flare will not ignite and are classified as duds.

Unexploded Ordnance (UXOs) as defined in 40 CFR 266.201 are “military munitions that have been primed, fused, armed, or otherwise prepared for action , and have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material and remain unexploded either by malfunction, design, or any other cause.”

### **Alternative A—No Action Alternative**

BDU-33s and flares will continue to be utilized at JBR. Dud flares identified outside the impact area will be rendered safe in place. Duds found in the impact area will continue to be left in the impact area but not treated. The impact area on JBR is a fenced 660-acre area in the center of the range that contains the targets.

Currently UXOs which are unsafe to move can be treated where found. Treatment of UXOs where found has the potential to negatively affect slickspot peppergrass (*Lepidium papilliferum*). If located within slickspots, UXOs should be moved to a designated location within the JBR Target Complex that does not contain slickspots. To date, a detonation site has not been designated. Render-safe procedures will not occur within slickspots.

### **Alternative B—Proposed Action**

EOD is proposing to designate an area on JBR to render safe UXOs. UXOs on JBR consist of BDU-33s and unconsumed flares.

EOD personnel are responsible for clearing JBR of expended munitions. EOD personnel separate the ordnance as scrap or duds (unsafe). UXOs which are not safe to move are detonated in place. UXOs that are safe to move but are not “certified safe” are moved inside the 600-acre target to render safe. To render safe, EOD line up UXOs and use C-4 explosive charges to detonate the unsafe ordnance. After detonation, EOD rechecks and separates the safe ordnance for recycling. Detonation sites currently exist on SCR and MHAFB but do not exist on JBR.

To date, during annual EOD clearance operations, BDU-33s not certified safe are left in the impact area on JBR. To date, approximately 177 BDUs need to be rendered safe upon acceptance of the proposed alternative.

In 1997, the Enhanced Training in Idaho (ETI) Environmental Impact Statement (EIS) was prepared to analyze a proposal to establish JBR. A Record of Decision (ROD) was reached March 1998. The ROD specifically states, Paragraph (1)(h), “non-explosive training ordnance on the proposed training range will consist of 25-pound BDU 33-2 or equivalent, to minimize the amount of land required and ground disturbance. Used non-explosive training ordnance will be periodically removed from the range.” EIS for ETI accounted for a designated area on JBR to render safe UXOs however, a specific site was not identified.

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In 2000, JBR Integrated Natural Resource Management Plan (INRMP) EA was prepared. A finding of no significant impact (FONSI) was reached concluding implementation of the INRMP would have no significant impacts to the environment. According to paragraph 3.3 of the EA, “JBR is characterized as a Class B range. Range de-contamination on Class B ranges consists of clearing the area around the targets of all unexploded ordnance and ordnance residue to a radius of 300 meters (1,000 feet) and clearing the area 30 meters (100 feet) on either side of the access way to the targets/target area.” Paragraph 3.3 of the EA also states “Any ordnance with an intact signal cartridge will be rendered safe in place or will be taken to a designated location within the target area to protect personnel and property.” Furthermore, “Any ordnance with an intact signal cartridge will be blown in place or will be taken to a designated location within the target area that protects personnel and property.” Although the 2000 JBR INRMP accounted for a designated area on JBR to render safe UXOs, a specific site was not identified.

In the 2004 INRMP, Section 6.11 affirmed EOD would be conducted for the entire 12,000-acre JBR. This section also states any ordnance with an intact signal cartridge will “be blown in place” or will be taken to a designated location within the target area protective of personnel and property.

To date, during annual JBR EOD clearance operations, BDU-33s not certified safe are placed in the impact area until they can be rendered safe. They are not blown in place due to a concern regarding the natural and cultural resources present. EOD has proposed designating an area on JBR to explode BDU-33s. The only approved detonation sites are on SCR and MHAFB. To date, there are approximately 177 BDUs to be rendered safe on JBR.

## The JBR North SAM Site (

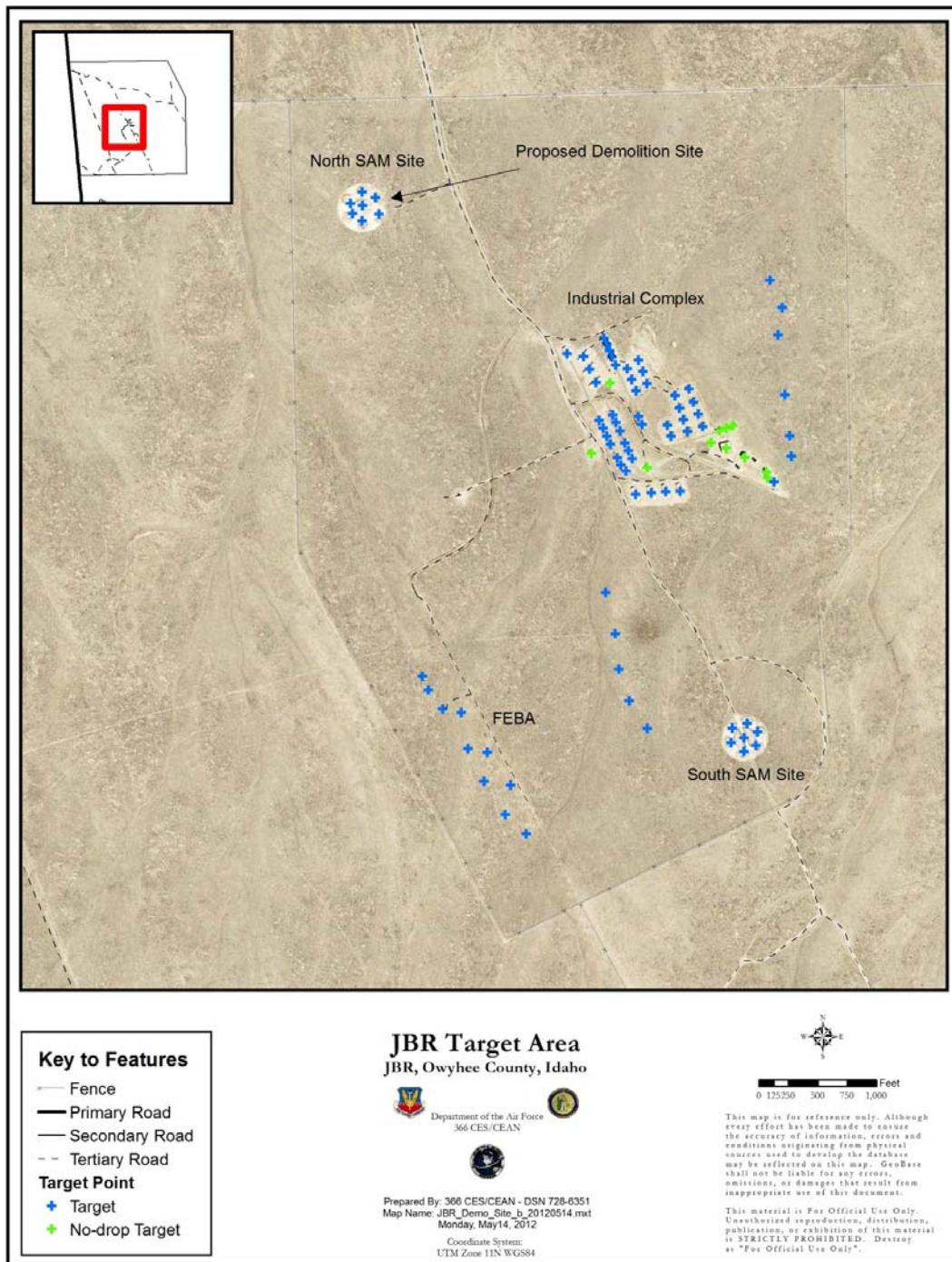


Figure 2) is the proposed detonation site. The North SAM Site is 440 feet in diameter area surrounded by ten-foot tall “U” shaped berms. The proposed site has been heavily disturbed through construction and use. No cultural resources occur within the site. No slickspots occur within the site.

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## **Alternative Comparisons**

This section compares impacts among the alternatives. Potential negative, though not significant, impacts are discussed in Table 1. The potential impacts associated with the proposed project are qualitative in nature because of an inability to predict parameters such as risk to EOD personnel.

### **Alternatives Considered but Not Carried Forward**

Alternatives considered but not carried forward include demilitarization and transportation off range to another MHAFB facility for render safe operations.

Demilitarization of UXOs is not practical. Examples of potential demilitarization processes include grinding (mechanically destruction) or incineration. The U.S. Air Force is not authorized to demilitarize UXOs, nor does the U.S. Air Force have the personnel or equipment necessary to demilitarize UXOs. Appropriate facilities for the demilitarization of UXOs exist in California. Use of these facilities by MHAFB is impractical and cost prohibitive.

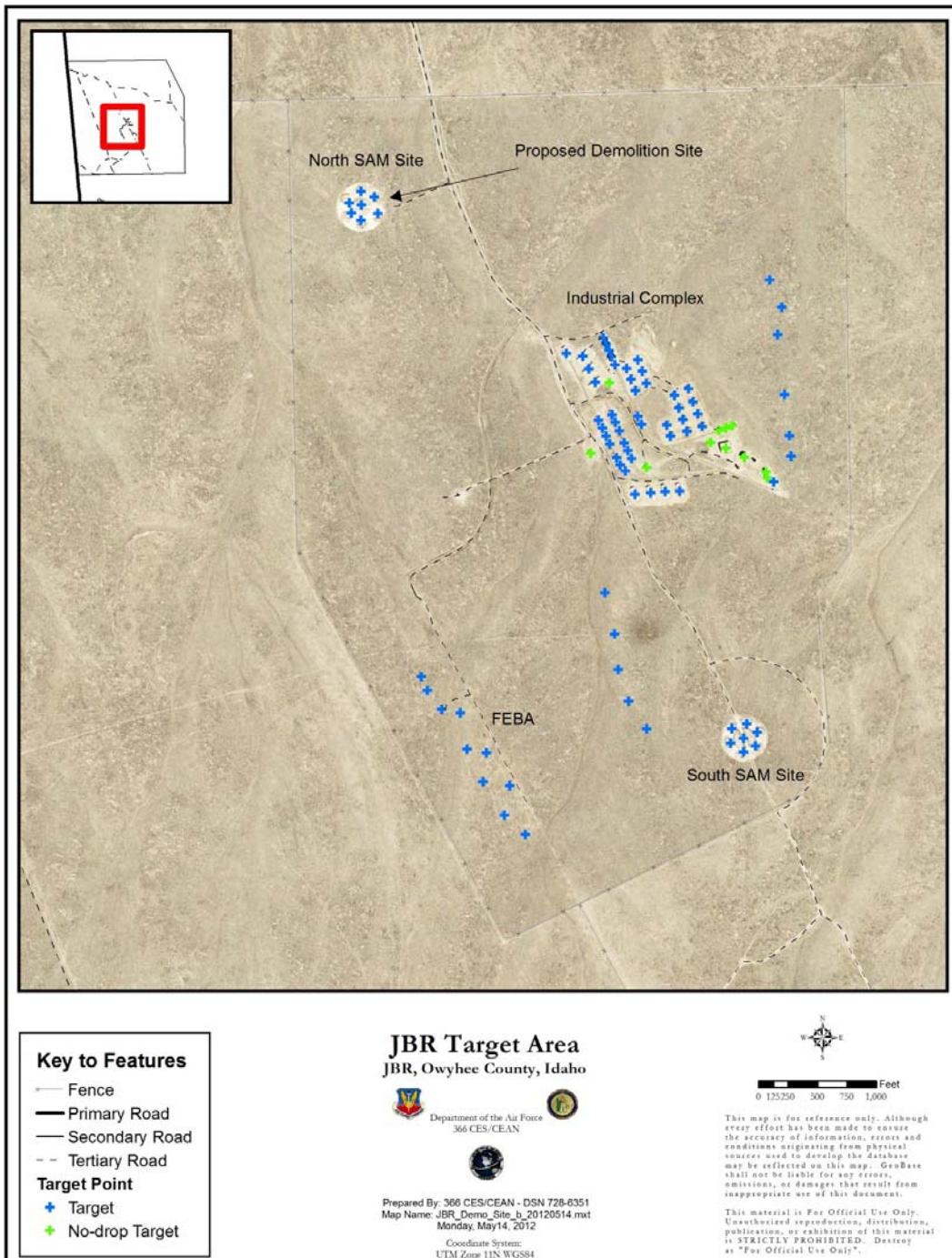


Figure 2. Proposed designated detonation site on JBR

Table 1. Alternatives comparison of potential impacts for designating detonation sites on JBR

Resource Area	Alternative A No Action	Alternative B Proposed Action
Noise	No change from current conditions. Periodical noise levels will increase when UXOs are treated in place	No increase in average hourly noise levels over existing conditions; frequency of detonation related noise events will decrease due to concentration of UXOs at the detonation site
Safety	No change from current conditions	Reduction to wildfire risk; slight decrease to risk of EOD personnel
Hazardous Materials and Solid Waste	No change from current conditions	No change from current conditions
Air Quality	No change from current conditions	Very slight decrease to fugitive dust emissions
Biological Resources	Potential for negative affects to Slickspot Peppergrass when UXOs are treated in place	No change to biological resources
Cultural Resources	Potential for negative affects to cultural resources when UXOs are treated in place	No change to cultural resources
Coastal Zone and Floodplain Resources	Coastal Zones and Floodplains are not present	Coastal Zones and Floodplains are not present
Land Use and Recreation	No change from current conditions	No change from current conditions
Water and Soil Resources	Potential for disturbance if UXOs are treated in place	Disturbance will be limited to detonation site
Socioeconomics	No change from current conditions	No change from current conditions

When a UXO is removed from a military range it is classified as either solid waste or hazardous waste. The U.S. Department of Transportation (DOT) regulates the transportation of solid and hazardous wastes. DOT regulations make transportation of UXOs to SCR and MHAFB impractical. Additionally, SCR and MHAFB are not permitted to receive solid and hazardous waste.

## Affected Environment

NEPA requires that an impact analysis of the resources and areas potentially affected by a project be conducted. It further directs that while all resources must be considered, those resources that will not be affected by the proposal need not be analyzed in detail. This EA will only focus on those resources

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potentially affected. A more detailed description of the affected environment can be found in the 2012 INRMP.

Effects to be discussed in this EA are the direct or indirect result of the designation of a detonation site on JBR only. Resource areas considered include: noise; safety; hazardous materials and solid waste; air quality; biological resources; cultural resources; coastal zone and floodplain resources; land use and recreation; water and soil resources; and socioeconomics.

In accordance with the Council on Environmental Quality (CEQ) regulations, the USAF determined that several resource areas warrant no further examination. Only noise; safety, hazardous materials and solid waste management; and air quality were examined in further detail.

## **Noise**

Noise is defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, diminishes the quality of the environment, or is otherwise annoying.

Response to noise varies by the type and characteristics of the source, distance between source and receptor, receptor sensitivity, and time of day. Noise may be intermittent or continuous, steady or impulsive, and may be generated by stationary or mobile sources. The dominant sources of existing noise associated with JBR are natural sources (e.g., wind) and human sources (e.g., noise associated with vehicular, aircraft, and range operations).

## **Safety**

Safety is defined as the freedom from danger which is the protection from, or not being exposed to, the risk of harm or injury. It is also the lack of danger or inability to cause or result in harm, injury, or damage.

This section describes the fire management and explosive safety requirements that are associated with designating the detonation site on the JBR.

### ***Fire Safety***

JBR is part of the sagebrush-steppe ecosystem; however, frequent fires have removed most of the sagebrush and allowed invasion by non-native species such as cheatgrass. These annual grasslands provide fine fuels and burn periodically, preventing the reestablishment of some native species.

Primary Training Range (PTR) contractor firefighters are on-duty during normal hours during fire season. Bureau of Land Management occupy a fire station on JBR throughout fire season. The PTR contractor firefighters have primary responsibility on JBR. When needed BLM firefighters will help suppress fires on JBR.

The BLM uses an interagency (the National Fire Danger Rating System) for developing daily fire danger indices to predict ignition potential for specific areas. The fire rating is broken into five categories ranging from low to extreme fire hazard (Table 2). This information is used to determine training and maintenance activities on any given day on SCR and JBR.

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**Table 2.** Fire rating classification

<i>Rating Number</i>	<i>Fire Hazard</i>
1	Low
2	Moderate
3	High
4	Very High
5	Extreme

### ***Explosive Safety***

All UXOs are handled and maintained by specifically trained personnel. The BDU-33 weighs approximately 25 pounds and is composed of ferrous metals, and equipped with a small signal cartridge. The signal cartridge, designated CSU-3A/B, contains 2 grams of gunpowder and approximately 17 cubic centimeters of titanium tetrachloride stored in a glass ampule (Air Force T.O. 11A4-4-7). The gunpowder, which detonates on impact, discharges the crushed ampule of titanium tetrachloride from the rear of the unit. The exposed titanium tetrachloride reacts with available moisture in the air to produce a smoke-like plume that persists for 15 to 30 seconds, depending on the moisture content of the air and wind velocity. Although this is a chemical reaction, it produces little or no heat. Titanium compounds are neither flammable nor combustible and become inert in the environment after exposure (AKZO Chemicals, 1991).

### **Hazardous Materials and Solid Waste**

According to 40 CFR 266.202 UXOs and military munitions and are not a solid waste when used for their intended purposes or used in training military personnel. Further, they are not solid waste when recovered, collected, and/or destroyed during range clearance activities resulting in recycling or reclamation. Expended munitions, munitions fragments, and UXOs rendered safe at JBR by the USAF will be recycled in accordance with DODI 4140.62.

### **Air Quality**

Air quality in a given location is described by the concentration of various pollutants in the atmosphere. National Ambient Air Quality Standards (NAAQS) are established by the United States Environmental Protection Agency (USEPA) for criteria pollutants including ozone ( $O_3$ ), carbon monoxide (CO), nitrogen dioxide ( $NO_2$ ), sulfur dioxide ( $SO_2$ ), particulate matter equal to or less than 10 micrometers in diameter ( $PM_{10}$ ), particulate matter less than 2.5 micrometers in diameter ( $PM_{2.5}$ ) and lead (Pb). NAAQS represent the maximum levels of background pollution that are considered safe, with an adequate margin of safety, to protect public health and welfare. Short-term standards (8- and 24-hour periods) are established for pollutants contributing to chronic health effects.

Fugitive dust emissions result from the ATVs utilized by EOD at JBR. Fugitive emissions are those that do not pass (or could not reasonably pass) through a vent, stack, chimney, or other functionally equivalent opening and are usually mobile sources. The Idaho Department of Environmental Quality (IDEQ) has not established fugitive dust emissions standards for Owyhee County.

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Toxic air pollutant (TAP) emissions were investigated for explosively treating UXOs. It is reasonable to assume that dust created during UXO treatment is classified as fugitive emissions since there is no possibility of collecting the emissions.

## **Biological Resources**

Biological resources are all the living components of an ecosystem. Biological resources include four major categories: vegetation, wildlife, wetlands, and threatened and endangered species. These categories are described in detail below.

### ***Vegetation***

For purposes of this EA, vegetation includes terrestrial plants and plant communities, and invasive species. A plant community is a combination of plants that depend on their environment, modify their environment, and influence one another. Together with their common habitat and other associated organisms, communities form an ecosystem, which is in turn, influenced by neighboring ecosystems and the microclimate of the region.

#### ***Historic Vegetation***

JBR is located within the Intermountain Sagebrush Province/Sagebrush Steppe Ecosystem. This ecosystem encompasses a wide range of landforms and vegetation types. Historically, Wyoming big sagebrush (*Artemesia tridentata wyomingensis*) covered the uplands in association with other native shrubsteppe species, such as bluebunch wheatgrass (*Agropyron spicatum*), Sandberg's bluegrass (*Poa secunda*), bottlebrush squirreltail (*Sitanion hystrix*), phlox (*Phlox* sp.), Lupine (*Lupinus* sp.), and Indian paintbrush (*Castilleja* sp.). Rabbitbrush (*Chrysothamnus* sp.) is another common shrub found in swales and disturbed areas.

#### ***Current Vegetation***

The landscape is currently a mosaic of shrubsteppe and non-native plant communities. The grassland vegetation is dominated by crested wheatgrass (*Agropyron cristatum*) and intermediate wheatgrass (*Agropyron intermedium*). Exotic annual grasses such as cheatgrass (*Bromus tectorum*) are dominant where native vegetation does not exist. Noxious and invasive weeds are a concern in disturbed areas.

Much of JBR is dominated by rabbitbrush shrubland and seeded grass species. There are remnant pockets of widely dispersed bluebunch wheatgrass and sagebrush. Common herbaceous species found throughout the range include clasping peppergrass, long-leaf phlox (*Phlox longifolia*), Hood's phlox (*Phlox hoodii*), low pussytoes (*Antennaria dimorpha*), Sandbergs bluegrass, lupine (*Lupinus arbustus*), and bottlebrush squirreltail.

### ***Wildlife***

Wildlife resources comprise terrestrial and aquatic fauna. Wildlife habitats consist of all environmental attributes required by an animal or aquatic species to survive and reproduce. Geographical species distribution and abundance depends on the quality, quantity, and distribution of available habitat.

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Authorities and jurisdiction for wildlife are governed by Idaho Code 36-103, the Endangered Species Act (ESA), and other relevant federal agency policies on the conservation of wildlife species.

#### Mammals

Mammal communities at JBR are dominated by an assortment of small mammals. Mule deer use the higher relief of the draw. Pronghorn antelope are found year-round throughout JBR and Elk use sagebrush habitat in the southern part of JBR during winter. Coyotes and badgers also occur.

#### Birds

Raptors: Most raptor species observed within JBR are canyon/cliff-nesting species. Upland raptorial species, the ferruginous hawk and the burrowing owl, have been observed at the JBR.

Upland Game Birds: Chukars occupy areas within Clover Creek Canyon with appropriate rocky escape habitat. These birds range onto the eastern areas of the JBR and Juniper Draw when foraging. Mourning doves, small upland game birds, are also found on JBR.

Waterfowl and Other Birds: Currently, the aboveground reservoir provides in accordance with the Air Force Bird Aircraft Strike Hazard (BASH) directives.

#### Amphibians and Reptiles

The above-ground reservoir at JBR provides amphibian habitat. Typical reptiles species associated with upland habitats include desert horned lizard, side-blotched lizard, sagebrush lizard, gopher snake, and western rattlesnake.

### **Threatened and Endangered Species (ESA)**

No critical habitat has been designated nor is proposed for JBR. The 2012 INRMP discusses, in detail, the affect of U.S. Air Force actions on Slickspot Peppergrass and Greater Sage Grouse.

#### Slickspot Peppergrass

Slickspot peppergrass was listed as Threatened under the ESA on December 9, 2009. MHAFB submitted a Biological Assessment on December 9, 2009 and received a Biological Opinion from the USFWS on October 29, 2010 analyzing the effects of U.S. Air Force ongoing actions at JBR (MHAFB 2010, USFWS 2010a). The USFWS agreed with MHAFB's assessment that some Air Force actions will have "no affect", some "may affect, not likely to adversely affect, and others "may affect, likely to adversely affect" slickspot peppergrass. The USFWS determined that the ongoing actions at JBR are "not likely to jeopardize the continuing existence" of slickspot peppergrass (USFWS 2010a; 94).

Slickspots and slickspot peppergrass are actively avoided by range clearance personnel. UXOs will be removed from slickspots prior to explosive treatment.

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## Greater Sage Grouse

The Greater Sage-Grouse (*Centrocercus urophasianus*) (hereafter sage-grouse) is a Candidate Species under the ESA. The 12-Month Finding for the Greater Sage-Grouse found that listing the species was warranted, but precluded (USFWS, 2010b).

Sage-grouse are a 3 to 6 lb bird. Sage-grouse can be found on JBR year-round. Sage-grouse are sensitive to human disturbance during critical times of the year (nesting and early brood rearing). Nesting may occur on JBR. However, nesting has not been documented on JBR.

## **Cultural Resources**

### *Archaeological Resources*

There are no archaeological resources within the proposed detonation site. This resource has not been carried forward for further analysis.

### *Traditional Resources*

No traditional cultural properties have been identified to date on JBR. This resource has not been carried forward for further analysis.

## **Wetlands**

No United States Army Corps of Engineers (USACE) jurisdictional wetlands are found on JBR.

## **Coastal Zone and Floodplain Resources**

No coastal zones or resources exist in the project area. There are no floodplains associated with JBR.

No significant impacts to coastal zone or floodplain resources in the proposed designated detonation site are expected from implementation of the Proposed Action or Alternative; therefore, this resource has not been carried forward for further analysis.

## **Land Use and Recreation**

### *Land Use*

JBR is not located on or adjacent to any local, state, or federally designated natural areas. A nearby wilderness area is the Bruneau-Jarbridge Rivers Wilderness Area. Much of the Bruneau-Jarbridge Rivers Wilderness Area is a BLM Bruneau/Jarbridge River Bighorn Sheep Area of Critical Environmental Concern (ACEC). JBR is located east of the Bruneau-Jarbridge Wilderness Area and the Bruneau-Jarbridge Bighorn Sheep Habitat ACEC.

### *Recreation*

There is no public access to the 12,000-acre range without special permission and clearance from MHAFB.

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No significant impacts to land use or recreation in the detonation site would be expected from implementation of the Proposed Action or Alternative; therefore, this resource has not been carried forward for further analysis.

## **Water and Soil Resources**

For the purposes of this analysis, water resources include all watersheds, drainage patterns, surface water, and floodplains associated with JBR. Groundwater will not be discussed as the designation of the detonation site does not involve any subterranean efforts and there is no potential for groundwater contamination.

### ***Watersheds***

JBR lies within the Bruneau River watershed. Any precipitation not lost to plant uptake, evaporation, or other losses, eventually flows into the Bruneau River or the local aquifer. Alteration or loss of vegetation and soil through wildfire or other disturbances may directly or indirectly affect water quality and water yield from a watershed. JBR is covered by native and disturbed rangeland vegetation types and soils of volcanic parent materials. Where protective ground cover is sparse, wind-caused soil erosion is of primary concern. Erosion hazard from water runoff is generally low due to gentle slopes and favorable soil textures, with the exception of long slopes where annual plants (including most weeds) offer poor soil stabilization qualities. Site-specific storm water best management practices are in place.

### ***Drainage Patterns/Surface Water/Floodplains***

JBR contains no perennial drainages.

Drainage patterns trend primarily from southwest to northeast. All drainages trend toward Juniper Draw. Juniper Draw intersects Clover Creek and the East Fork Bruneau Canyon north of JBR. No floodplains are associated with JBR.

No significant impacts to water resources in the proposed designated detonation site would be expected from implementation of the Proposed Action or Alternative; therefore, this resource has not been carried forward for further analysis.

### ***Soils***

JBR is located on undifferentiated basalt at the base of Juniper Butte and is underlain with basalt flows. Soils are classified as loamy.

No significant impacts to soil resources in the proposed designated detonation site would be expected from implementation of the Proposed Action or Alternative; therefore, this resource has not been carried forward for further analysis.

## **Socioeconomics**

Socioeconomics is defined as the social and economic activities associated with the human environment, particularly population and economic activity. Economic activity typically includes employment,

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personal income, and industrial growth. Impacts on economic activity can influence other components such as housing availability and public services.

No significant impacts to social or economic activity in the proposed designated detonation site area would be expected from implementation of the Proposed Action or Alternative; therefore, this resource has not been carried forward for further analysis.

## **Environmental Consequences**

Discussion is limited only to resource areas that have the potential to be affected by the Proposed Action and Alternative. Resource areas not anticipated to be affected by the Proposed Action and Alternatives are discussed in the previous section.

### **Noise**

#### **Proposed Action**

Designating a detonation site at JBR will reduce periodic acute, short-term noise events associated with detonation activities. Detonation activities could occur up to three times per year but will likely only occur once a year.

Designating a detonation site on JBR may generate temporary, very infrequent noise increases on JBR. On an average day, designating the detonation site on JBR will not increase the ambient noise conditions.

#### **No-Action Alternative**

Currently, explosive treatment of UXOs can occur wherever UXOs are found. An average of 18 UXOs are discovered on JBR during annual range clearance. An average of 18 noise events could occur on JBR annually.

### **Safety**

#### **Proposed Action**

Designating a detonation site on JBR may slightly decrease the risk to EOD personnel due to the fact that they will be detonating UXOs in a single location instead of up to 18 locations per year. Safety procedures in AFI 32-3001 would be implemented so that no other personnel will be at risk from utilizing the detonation site.

When the signal cartridge in a BDU-33s is deployed it produces little heat and does not add to fire risk. However, rendering UXOs in place has added potential to start wildfires. Annual range clearance occurs in May/June to reduce this risk. The proposed action will reduce the risk of wildfire as the proposed detonation site is clear of vegetation.

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## **No-Action Alternative**

Not designating a detonation site on JBR would continue to have a higher risk to non-USAF and USAF personnel because an average of 18 UXOs annually would be rendered safe in place. Rendering safe UXOs in place has the potential to start wildfires. Range clearance operations occur in May or June each year to mitigate this risk. The risk of wildfire during these months is low.

### **Air Quality**

#### **Proposed Action**

Designating the detonation site on JBR may generate a slight decrease to fugitive dust due to the reduction in potential detonations. Explosive treatment of UXOs could occur two to three times a year which would result in a negligible amount of fugitive dust. Due to the fact that there are no fugitive dust rules in Owyhee County this does not present a problem and no dust generating permits will be required.

#### **No-Action Alternative**

Not designating the detonation site on JBR would not change the amount of fugitive dust being generated.

### **Biological Resources**

#### **Proposed Action**

Designating and using the detonation site on JBR will have fewer effects on biological resources than the No-Action Alternative. The reduction in effects would be because of the reduction in disturbance. Fewer detonations would occur resulting in fewer areas for weed invasion, reduced erosion potential, and reduced opportunities to start fires. Native vegetation would be affected less than with the No-Action Alternative.

The potential indirect effects on slickspot peppergrass would be reduced by the reduction in the potential for weed invasion and the reduced potential for erosion. No effects are expected to occur to slickspot peppergrass from the use of the North SAM Site. The site is 440 feet in diameter and the site is previously disturbed. Figure 3 shows the locations of slickspots and slickspots with slickspot peppergrass surveyed in 2001 near the North SAM Site.

Direct effects for sage-grouse would be lower for the proposed action than for the no-action alternative because fewer noise events would occur.

#### **No-Action Alternative**

The No-Action Alternative would maintain the current conditions of biological resources. A slight increase in the potential for weedy plants to invade and an increase in the potential to start wildfires exist with this alternative. Furthermore, more soil disturbing events would occur resulting in a slight increase in the potential for erosion.

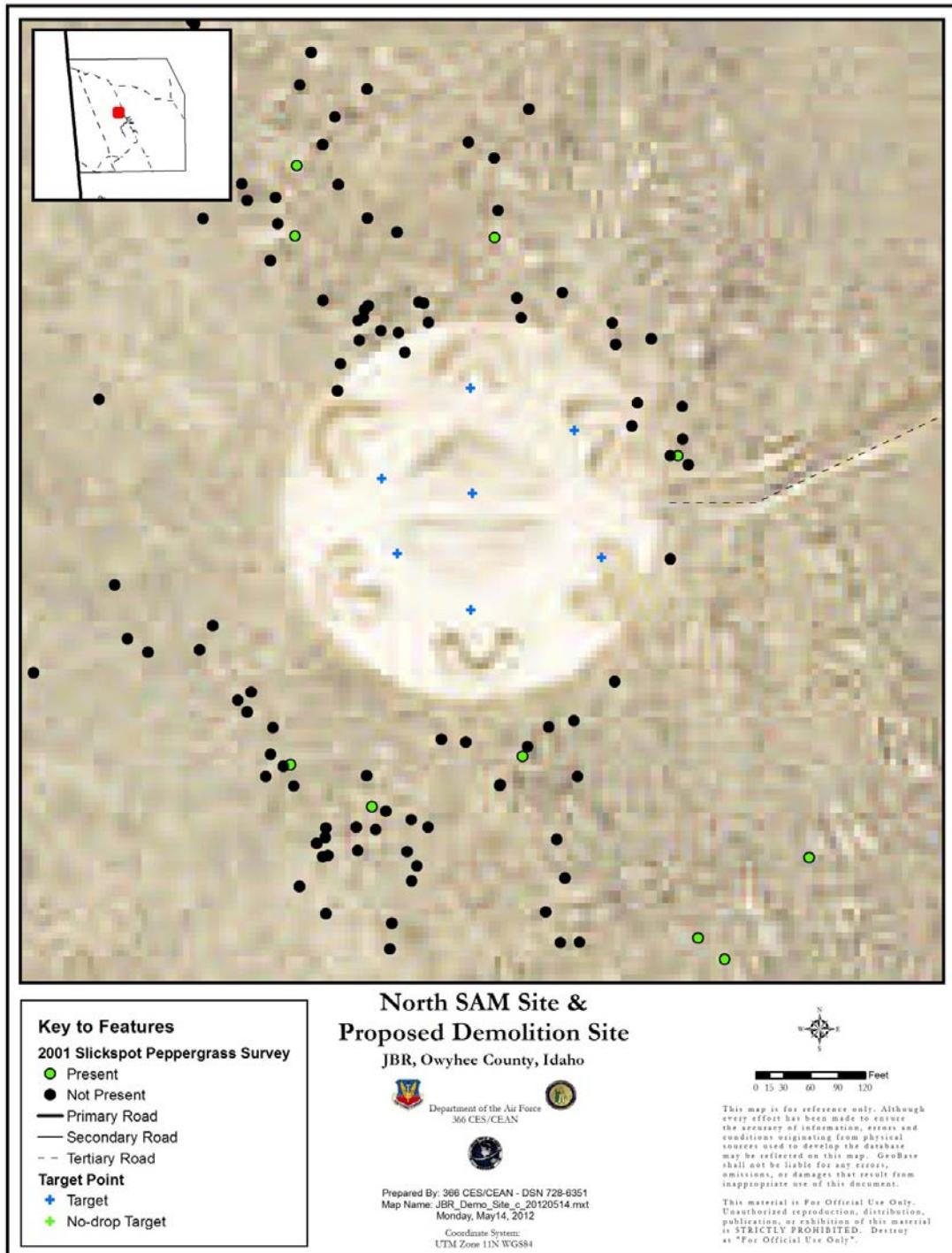


Figure 3. Locations of slickspots with respect to the proposed demolition site

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